Figure 3 Protection sleeve and trocar for nail slid along guide wire to nail.

DISCUSSION

In 1953, Seldinger first described a technique for percutaneous cannulation of a blood vessels. This was achieved by placing a guide wire through a hollow needle; the blood vessel lumen was then accessed along the guide wire. We believe that end capping of intramedullary nails can be reliably achieved using a combination of our described 'Seldinger' technique using a guide wire and trocar and conventional image intensification.

Figure 4 End cap inserted into nail through protection sleeve of cannulated trocar.

Arthroscopic removal of loose bodies – a useful technique

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BACKGROUND

We describe a simple and useful technique for removal of loose bodies during arthroscopy.

TECHNIQUE

We use standard antero-lateral, antero-medial and supero-lateral arthroscopic portals. The technique is applicable to both pump-assisted and gravity-assisted irrigation. The key to this new technique is reversing the direction of irrigation flow.

Figure 1 Line diagram of the knee to illustrate the direction of flow of the irrigation fluid used in this technique.

Figure 2 Photograph illustrating the removal of loose bodies using this new technique.

The commonest direction of flow is in through the scope and out through a drainage cannula. This tends to push away the loose body from the field of vision, sometimes into one of the recesses of the knee. To overcome this problem, we reverse the direction of flow so that irrigation is in through the drainage cannula which is sited using a separate supero-lateral portal, and out through the scope (sited using standard antero-lateral portal) as shown in Figure 1. The effect is to suck the loose body towards the scope. The loose body either stabilises around the tip of the telescope or obscures the view because it is sucked onto the tip of the telescope.

A grabber is then introduced through the antero-medial portal and the loose body removed using one of two methods. First, using a grabber in the normal way under direct vision. Or second, when the loose body is sucked onto the tip of the scope obscuring the view, the jaws of the grabber are placed around the scope which is then gently withdrawn, dragging the loose body into the jaws of the grabber (Fig. 2).

DISCUSSION

Loose bodies within the knee can be difficult to find and remove. They are often slippery, adding difficulty to their removal.¹ This new technique helps in locating the loose bodies and stabilising them for removal with a standard grabbing instrument and standard arthroscopic portals. Common locations of loose bodies include the lateral gutter, the suprapatellar pouch, the intercondylar notch and the medial gutter.² Siting the inflow cannula helps by flushing the loose bodies away from these potential sites to the tip of the telescope.

Use of suction tip for the removal of loose bodies is a well described technique.³ Our technique is superior for three reasons: (i) it allows visualisation of the loose body before removal; (ii) suction may remove irrigant from the knee before the loose

body; and (iii) no additional equipment (i.e. suction) is required. The proposed new technique might be useful when the suction tip technique has failed. This technique adds to the various options for the surgeon upon locating an intra-articular loose body.

This technique has been useful in removing the following loose bodies: osteochondritis dessicans, osteochondral fractures, osteophytes, synovial chondromatosis and large meniscal fragments. Partial meniscectomy may result in large, loose meniscal fragments, which may become hidden in one of the recesses of the knee.⁴ Simple reversal of the fluid flow as described in this technique would aid in the retrieval of such loose bodies.

References

1. Dandy DJ, O'Carroll PF. The removal of loose bodies from the knee under arthroscopic control. *J Bone Joint Surg Br* 1982; **64**: 473–4.
2. Stotter IG, Illingworth G, Ayoub M. Arthroscopic removal of loose bodies from the knee. *J R Coll Surg Edinb* 1984; **29**: 246–8.
3. Canale ST (ed). *Campbell's Operative Orthopaedics*, 10th edn, vol. 3, 2002; 2523.
4. McGinty JB. Arthroscopic removal of loose bodies. *Orthop Clin North Am* 1982; **13**: 313–29.

K-wiring distal radial fractures, an alternative technique

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BACKGROUND

K-wiring of distal radial fractures is traditionally performed with the patient supine and the affected arm laid laterally on either the image intensifier or an arm table.¹ Manipulation is performed, the fracture reduced and position checked with the image intensifier. The K-wires are then inserted. During this process, constant traction is not maintained and, therefore, the reduction may be lost. We utilise a technique allowing constant traction thus facilitating insertion of the K-wires and, therefore, maintaining reduction throughout the procedure.

TECHNIQUE

The patient is placed supine on the operating table with a tourniquet placed on the arm (Fig. 1). The shoulder is abducted 90° and the elbow flexed to approximately 70°. A vertical bolster is fixed to the table so as to hold the arm in this position when longitudinal traction is applied across the wrist. An arm table is then attached to the table caudal to the bolster. The tourniquet is inflated and the arm painted and draped in standard fashion. A large, upturned kidney dish is placed under the forearm and longitudinal traction applied to the thumb and fingers by the assistant. The